

December 18, 2000

Mr. Michael L. Griffin
Manager of Environmental and Regulatory Affairs
Crow Butte Resources, Inc.
86 Crow Butte Road
Post Office Box 169
Crawford, NE 69339-0169

SUBJECT: REPLY TO 60-DAY REPORT, WELL SM6-12 UPPER CONTROL LIMIT
EXCEEDANCE, CROW BUTTE FACILITY, LICENSE NO. SUA-1534

Dear Mr. Griffin:

We received your 60-Day report on the results of corrective actions performed to mitigate the upper control limit (UCL) exceedances in shallow monitoring well SM6-12. The exceedances were initially detected during the routine biweekly sampling episode conducted on September 8, 2000; and was reported to the U.S. Nuclear Regulatory Commission's Operations Center on September 10, 2000, after confirmation of the exceedances. A written report was submitted by letter dated September 15, 2000 (ML003753390), and a 60-Day report submitted by letter dated November 7, 2000 (ML003769667).

The parameters that exceeded the UCLs were sodium, sulfate, chloride, conductivity, and alkalinity. An investigation of the area surrounding well SM6-12 revealed that injection well I-1274 had a stuck pressure relief valve, which caused the spillage of injection fluids at a rate of about 1 gallon per minute (gpm). This condition was determined to have continued approximately 23 days, resulting in a maximum of 33,120 gallons of injection fluid being released. The spilled injection fluids apparently saturated the soil surrounding the well and seeped into the shallow aquifer. Crow Butte Resources performed mechanical integrity tests (MITs) on the injection wells surrounding SM6-12 and in the immediate vicinity of the shallow monitoring well. All wells successfully passed the MITs, indicating the excursion was not the result of casing damage from injection wells. Crow Butte Resources also examined wellfield records and determined that the spilled injection fluid did not reach the locations of any abandoned boreholes.

Crow Butte Resources began pumping well SM6-12 at a rate of about 12 gpm, upon identification of the stuck pressure valve. The pumped water was routed into production lines for return to the processing plant. The pumping continued until October 20, 2000, when the weekly sampling results, collected on October 19, indicated that all parameters were at or below the applicable UCLs. A total of 689,565 gallons had been pumped from September 9 through October 20. The final three samples were taken on October 19, October 26, and November 2. All of these samples were at or below the applicable UCLs.

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Crow Butte Resources concluded in the November 7, 2000 report that the excursion has been corrected and the well should be returned to normal status. We agree with your conclusions and the decision to return well SM6-12 to routine operations and monitoring, based on the information provided in the November 7, 2000 report. Monitoring and sampling of well SM6-12 should continue in accordance with License Condition 11.2. In addition, Crow Butte Resources is reminded that the shallow ground water surrounding well SM6-12 must also comply with the restoration criteria requirements of License Condition 10.3C, which will require a restoration demonstration for this location at the time the ore horizon within Unit 6 is restored.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

If you have any questions concerning this letter, please contact the NRC Project Manager, Mr. Michael Layton, at (301) 415-6676 or e-mail mcl@nrc.gov.

Sincerely,

/RA/

Philip Ting, Chief
Fuel Cycle Licensing Branch
Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Material Safety and Safeguards

Docket No. 40-8943
License No. SUA-1534

cc: Stephen P. Collings, CBR, Denver
Dave Miesbach, Nebraska, UIC, DEQ
Dave Carlson Nebraska, UIC, DEQ
Cheryl K. Rogers, Nebraska, RMP, PHA

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